

### REMARKS

The Office Action dated August 3, 2004 has been received and carefully noted. The above amendments to the claims and the following remarks are submitted as a full and complete response thereto.

Claims 1-29 are currently pending in the application, however claims 16-29 were withdrawn pursuant to a restriction requirement. Claims 1 and 13 have been amended to more particularly point out and distinctly claim the subject matter of the invention. No new matter has been added, and no new issues are raised which require further consideration or search. Claims 1-15 are again submitted for consideration.

The Office Action acknowledged that claims 13-15 contain allowable subject matter and would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. Claim 13 has been rewritten to be in independent form including all of the limitations of claim 1, the base claim. Claims 14 and 15 are dependent upon claim 13. Thus, Applicants respectfully submit that claims 13-15 are now in condition for allowance.

Claims 1-3 and 8-11 were rejected under 35 U.S.C. 102(b) as being anticipated by Onishi (U.S. Patent No. 5,434,863). Claims 1-12 were rejected under 35 U.S.C. 102(e) as being anticipated by Haddock (U.S. Patent No. 6,104,700). Claim 5 was rejected under 35 U.S.C. 103(a) as being unpatentable over Onishi. Claim 5 was also rejected under 35 U.S.C. 103(a) as being unpatentable over Haddock. The above rejections are respectfully traversed for the following reasons.

According to claim 1, upon which claims 2-12 are dependent, the present invention is directed to a network switch for network communications. The network switch includes at least one first data port interface, the at least one first data port interface supporting a plurality of first data ports transmitting and receiving data at a first data rate. The network switch further includes at least one second data port interface, the at least one second data port interface supporting a plurality of second data ports transmitting and receiving data at a second data rate. The network switch also includes a flow control unit, wherein at least one of the first data ports and at least one of the second data ports are linked together with a plurality of ports on a second network switch forming a trunk group with a larger load capacity which is configured by the flow control unit to statistically distribute a data load transmitted across the trunk group.

The present invention is concerned, in part, with trunking in a network switch. Trunking involves logically treating several links or connections between two devices as a single link. One embodiment of the present invention is illustrated in Fig. 20 where multiple ports are tied together so that a logical link would have a greater capacity than any one port on the network switch.

The cited prior art reference of Onishi fails to disclose or suggest the elements of the claims, and therefore fails to provide the advantages discussed above.

Onishi discloses an internetworking apparatus for connecting plural network systems and a communication network system composed of plural network systems mutually connected. More specifically, Onishi discloses that a router manager and a

plurality of routing accelerator modules for performing routing are connected to one another through a high speed bus, and a plurality of communication ports are connected to the respective routing accelerators. The plurality of routing accelerators can perform the routing for the reception of a data packet at high speed.

Onishi does not disclose, as recited in present claim 1, a flow control unit that links together ports such that “at least one of said first data ports and at least one of said second data ports are linked together with a plurality of ports on a second network switch forming a trunk group with a larger load capacity than either of said at least one of said first data ports and said at least one of said second data ports, said trunk group being configured by the flow control unit to statistically distribute a data load transmitted across said trunk group.” The Office Action took the position that the bus disclosed in Onishi is equivalent to the trunk group recited in the pending claims. Applicants respectfully assert, however, that a bus does not correspond to a trunk group. A bus, generally, is a transmission path upon which signals are dropped off or picked up at every device attached to the line. Onishi specifically discloses that various communication control sections are connected to the buses (Onishi, Column 7, lines 20-22).

A trunk group, on the other hand, is where multiple ports are combined to form a single logical port with a larger load capacity. The Office Action alleges that the differences between the claimed trunk group and the bus disclosed in Onishi are not claimed. However, claim 1 specifically recites that a trunk group is formed when “at least one of said first data ports and at least one of said second data ports are linked

together with a plurality of ports on a second network switch.” Therefore, the claims clearly recite that a trunk group is a plurality of ports linked together thereby resulting in a larger load capacity. This trunk group, as recited in the claims, does not correspond to a transmission path such as a bus. There is no apparent disclosure in Onishi of linking ports together to distribute the data load across a trunk group. A person of ordinary skill in the art of networking devices would not consider a trunk group and a bus to be similar. Therefore, this essential element of claim 1 is not taught or suggested by Onishi.

Additionally, Onishi does not render the claims of the present application obvious. Onishi does not disclose or suggest the use of trunk groups and thus one of skill in the art would not have been motivated to modify Onishi to yield the claimed invention.

Given the deficiencies of Onishi discussed above, applicants respectfully submit that the rejection of claim 1 as being anticipated by Onishi is improper for failing to disclose all of the elements of claim 1. Additionally, applicants respectfully submit that claims 2-12, which are dependent upon claim 1, should be allowed for at least their dependence on claim 1 and the specific limitations recited therein.

The cited prior art reference of Haddock also fails to disclose or suggest the elements of the claims, and therefore fails to provide the advantages discussed earlier.

Haddock discloses a policy based quality of service. Particularly, Haddock discloses a method for managing bandwidth allocation in a network that employs a non-deterministic access protocol, such as an Ethernet network. A packet forwarding device receives information indicative of a set of traffic groups, if the QoS policy is based upon

individual station applications; or a physical port if the QoS policy is based purely upon topology. After receiving a packet associated with one of the traffic groups on a first port, the packet forwarding device schedules the packet for transmission from a second port based upon bandwidth parameters corresponding to the traffic group with which the packet is associated.

Haddock also fails to disclose, as recited in present claim 1, a flow control unit that links together ports such that “at least one of said first data ports and at least one of said second data ports are linked together with a plurality of ports on a second network switch forming a trunk group with a larger load capacity than either of said at least one of said first data ports and said at least one of said second data ports, said trunk group being configured by the flow control unit to statistically distribute a data load transmitted across said trunk group.” The Official Action asserted that the switch matrix disclosed in Haddock corresponds to the trunk group recited in the present invention. The switch matrix is a device that connects each channel to a central memory such as packet random access memory (Haddock, Column 4, lines 30-32). On the other hand, a trunk group is formed when multiple ports are combined to form a single logical port with a larger load capacity.

The Office Action again alleges that the differences between the claimed trunk group and the bus disclosed in Haddock are not claimed. As stated above, claim 1 specifically recites that a trunk group is formed when “at least one of said first data ports and at least one of said second data ports are linked together with a plurality of ports on a

second network switch.” Therefore, the claims clearly recite that a trunk group is a plurality of ports linked together which results in a larger load capacity; the claimed trunk group does not correspond to a switch matrix. Consequently, Haddock does not disclose linking ports together to form a trunk group, and therefore this element of claim 1 is not disclosed or suggested by Haddock.

In addition, Haddock does not render the claims of the present application obvious. Haddock does not disclose or suggest the use of trunk groups and thus one of skill in the art would not have been motivated to modify Haddock to yield the claimed invention.

Applicants respectfully assert that the rejection of claim 1 is improper as Haddock fails to teach all of the elements of claim 1. Furthermore, applicants respectfully submit that claims 2-12, which depend from claim 1, should be allowed for at least their dependence on claim 1 and the specific limitations recited therein.

Claim 5 was rejected under 35 U.S.C. 103(a) as being unpatentable over Onishi. The Office Action acknowledged that Onishi does not teach the placement of the first data port interface, second data port interface, CPU interface and communication channel on a single chip. The Office Action then took the position that “a person of ordinary skill in the art would have been motivated to integrate these components onto a single chip by the constant desire for smaller integrated electronic devices.” However, as stated earlier, Onishi does not disclose or suggest the use of a trunk group as recited in claim 1. Therefore, it would not have been obvious to one of skill in the art to integrate the

omponents onto a single chip that included the trunk group element. In any case, applicants submit that claim 5 is dependent upon claim 1 and therefore should be allowable for at least its dependence on claim 1.

Claim 5 was also rejected under 35 U.S.C. 103(a) as being unpatentable over Haddock. The Office Action acknowledged that Haddock does not teach the placement of the first data port interface, second data port interface, CPU interface and communication channel on a single chip. The Office Action then took the position that a person of ordinary skill in the art would have been motivated to integrate these components onto a single chip by the constant desire for smaller integrated electronic devices." However, as discussed earlier, Haddock fails to disclose or suggest the use of a trunk group as recited in claim 1. Therefore, it would not have been obvious to one of skill in the art to integrate the components onto a single chip that included the trunk group element. Moreover, applicants submit that claim 5 is dependent upon claim 1 and therefore should be allowable for at least its dependence on claim 1. Thus, applicants respectfully submit that the rejections are improper for failing to disclose or suggest the elements of claim 5.

Applicants respectfully submit that the cited prior art fails to disclose or suggest technical and important elements of the claimed invention. These distinctions are more than sufficient to render the claimed invention unanticipated and unobvious. It is therefore respectfully requested that all of claims 1-15 be allowed, and this application be allowed to issue.

If for any reason the Examiner determines that the application is not now in condition for allowance, it is respectfully requested that the Examiner contact, by telephone, the applicants' undersigned attorney at the indicated telephone number to arrange for an interview to expedite the disposition of this application.

In the event this paper is not being timely filed, the applicants respectfully petition for an appropriate extension of time. Any fees for such an extension together with any additional fees may be charged to Counsel's Deposit Account 50-2222.

Respectfully submitted,



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